

REMARKS

I. Introduction

With the cancellation herein without prejudice of claims 2 and 3, claims 1, 4 to 8 and 10 to 15 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Rejection of Claims 1 to 8 and 10 to 15 Under 35 U.S.C. § 102(b)

Claims 1 to 8 and 10 to 15 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,975,390 ("Fujii et al."). Applicants respectfully submit that Fujii et al. do not anticipate the present claims as amended herein for the following reasons.

As an initial matter, claims 2 and 3 have been canceled herein without prejudice, thereby rendering moot the present rejection with respect to claims 2 and 3.

Claim 1 relates to a micromechanical component. Claim 1 has been amended herein without prejudice to recite that the micromechanical component is configured as a thermal membrane sensor. Support for this amendment may be found, for example, on page 6, lines 18 to 20 of the Specification. Claim 1 recites that the micromechanical component includes a supporting body, at least one at least partially unsupported membrane connected to the supporting body and at least one stabilizing element provided in an unsupported area on some areas of a surface of the at least one membrane. Claim 1 has been further amended herein without prejudice to recite that the at least one stabilizing element of the micromechanical component is configured to counteract a deformation of the at least one membrane. Support for this amendment may be found, for example, in claim 3 as originally filed. Claim 1 has also been amended herein without prejudice to change "length of the recess" to --depth of the recess-- even more accurately set forth the subject matter of claim 1.

Fujii et al. purport to relate to a method of fabricating a semiconductor pressure sensor. Fujii et al. do not disclose or suggest sensors other than pressure sensors. That is, Fujii et al. do not disclose, or even suggest, that a micromechanical component is configured as a thermal membrane sensor as

recited in claim 1. In this regard, piezoresistive layer 6 below membrane 5, which is apparently considered in the Final Office Action to be a stabilizing element, is used for signal production in the pressure sensor. Col., lines 29 to 30. According to the piezoelectric effect, the electric resistance of the piezoelectric material varies as a function of its mechanical deformation under the influence of external pressure. Col. 1, lines 9 to 17. Thus, the piezoresistive layer 6 situated at the membrane utilizes the deformation of the membrane under the influence of pressure so as to produce a change in resistance as a sensor signal. That is, deformation of the membrane is precisely desired and inevitably necessary and must not be suppressed since otherwise the pressure cannot be measured.

In stark contrast to the foregoing, in a thermal membrane sensor, the membrane is not used as a mechanical transducer but rather for thermal decoupling of the sensor elements arranged on the surface of the membrane from surrounding structural elements arranged on the carrier substrate made of silicon. Therefore, a deformation of the membrane is not provided. As indicated above, claim 1 as amended herein without prejudice recites that the at least one stabilizing element is configured to counteract deformation of the at least one membrane. A pressure sensor described by Fujii et al. does not include this feature since its measuring principle presupposes a deformation.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1586 (Fed. Cir. 1990). As more fully set forth above, it is respectfully submitted that Fujii et al. do not disclose, or even suggest, all of the limitations of amended claim 1. It is therefore respectfully submitted that Fujii et al. do not anticipate amended claim 1.

As for claims 4 to 8 and 10 to 15, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, it is respectfully submitted that Fujii et al. do not anticipate these dependent claims for at least the same reasons given above in support of the patentability of claim 1.

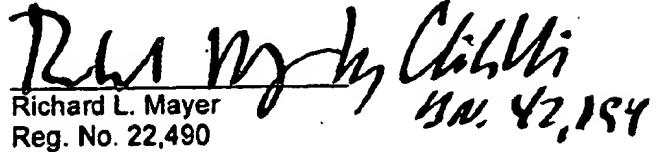
III. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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